

Abstract of the Disclosure

This invention contemplates improved methods of enzymatic production of carbohydrates especially fucosylated carbohydrates. Improved syntheses of glycosyl 1- or 2-phosphates using both chemical and enzymatic means are also contemplated. The phosphorylated glycosides are then used to produce sugar nucleotides that are in turn used as donor sugars for glycosylation of acceptor carbohydrates. Especially preferred herein is the use of a disclosed method for fucosylation.